DOCUMENT RESUME

ED 172 969 RC 011 341

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TITLE Funding Mechanisms and Their Effects on Rural Areas: An Analysis of Two Federal Programs. A Rand Note.
INSTITUTION Rand Corp., Santa Monica, Calif.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.; Office of the Assistant Secretary for Education (DHEW), Washington, D.C.
REPORT NO RAND/N-1237-HEW
PUB DATE Jul 79
CONTRACT 300-76-0065
NOTE 43p.; Revision of a paper presented at the Rural Education Seminar (College Park, Maryland, 29-31 May 1979)
AVAILABLE FROM Rand Corp., 1700 Main Street, Santa Monica, CA 90406 ($3.00)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Comparative Analysis; *Educational Finance; *Federal Aid; *Federal Legislation; Federal Regulation; Financial Policy; Financial Support; Government Role; Grants; Rural Areas; *Rural Education; *Rural Schools; *Rural Urban Differences; Small Schools; Use Studies
IDENTIFIERS *Elementary Secondary Education Act Title IV

ABSTRACT

In recent years rural advocates have claimed that rural students do not get their "fair share" of the federal education dollar and that federal programs are sometimes poorly tailored to rural conditions. These claims of an anti-rural bias have led to a study of fiscal year 1977 federal funding patterns in the six sample states of Vermont, North Carolina, Georgia, Kansas, Maryland, and California. The study examines the distribution of federal funds between rural and non rural school districts for two parts of the amended Elementary and Secondary Education Act of 1965; Title IVB of the act deals with libraries and learning resources and Title IVC deals with education innovation and support. Analyses were carried out using several alternatives definitions of ruralness: the metropolitan/nonmetropolitan distinction and three finer-grained definitions. Preliminary findings indicate that Title IVB formulas are operating to provide rural districts in the sample states with at least a proportional share of federal funds and in most cases somewhat more. Even with a greater per capita share, however, a small rural district can buy fewer educational resources with its Title IVB grant than can a populous district with a lower per capita grant. Funding patterns of Title IVC, a competitive grant program differ across states; funding in Georgia, North Carolina, and Maryland seems to favor rural areas while funding in California, Kansas, and Vermont may discriminate against rural regions. The study offers several recommendations for reducing the possible competitive disadvantages of rural districts in grant programs. (Author/DS)

ED172969

RAND/N-1237-HEW

July 1979

FUNDING MECHANISMS AND THEIR EFFECTS ON RURAL AREAS: AN ANALYSIS OF TWO FEDERAL PROGRAMS

Gail Bass, Paul Berman

A Rand Note

prepared for the

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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The research reported herein was sponsored by the Office of the Assistant Secretary for Education, U.S. Department of Health, Education, and Welfare, and the National Institute of Education under Contract No. 300-76-0065.

The Rand Publications Series: The Report is the principal publication documenting and transmitting Rand's major research findings and final research results. The Rand Note reports other outputs of sponsored research for general distribution. Publications of The Rand Corporation do not necessarily reflect the opinions or policies of the sponsors of Rand research.

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PREFACE

This Note reports preliminary findings from a study examining the distribution of federal funds between rural and nonrural school districts.* The study, which is still in progress, is being conducted at The Rand Corporation under the sponsorship of the Office of the Assistant Secretary for Education, U.S. Department of Health, Education, and Welfare, and the National Institute of Education. For this pilot study, a sample of six states was selected for an analysis of the funding patterns for Fiscal Year 1977 of two state-administered federal programs: (1) Libraries and Learning Resources (ESEA Title IV, Part B), and (2) Educational Innovation and Support (ESEA Title IV, Part C).

Section I of this Note explains the concerns that led to the current research and reviews some relevant literature. Section II describes the conceptual approach and discusses a number of methodological issues. Section III tells what the authors have learned thus far about how rural districts fare under the two programs in the sampled states. The concluding section reviews the study findings and makes recommendations for policy and further research.

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*The authors wish to acknowledge Dr. Jonathan Sher's assistance in planning this study and his helpful comments on an earlier version of this Note. This Note was presented at the Rural Conversation Seminar, College Park, Maryland, May 29-31, 1979.

SUMMARY

Rural advocates have claimed that rural students do not get their "fair share" of the federal education dollar. Unfortunately, there has been little analysis that sheds light on claims of anti-rural bias in the allocation of federal education funds. Earlier studies use non-metropolitan status (a category that includes cities of up to 50,000 people) as their indicator of ruralness, which might mask the fact that smaller rural districts receive a disproportionately small share of federal funds.

This study examines, for six states (Vermont, North Carolina, Georgia, Kansas, Maryland, and California), the distribution of Fiscal Year 1977 funds between rural and nonrural school districts for two state-administered federal programs: (1) Libraries and Learning Resources (ESEA Title IV, Part B), and (2) Educational Innovation and Support (ESEA Title IV, Part C). These two programs represent the two basic types of federal funding mechanisms--formula-based (Title IVB) and grants competitions (Title IVC).

For the purpose of this study, we accepted that there is no definitive definition of rural. In addition to the metropolitan/nonmetropolitan distinction used in earlier studies, we performed analyses using three finer-grained definitions of ruralness. Our criterion of equity was whether rural districts were receiving the same number of dollars per student from the federal program as were nonrural districts.

In our sample states, Title IVB funding formulas are operating to provide rural districts with at least a proportional share of program funds and in most cases somewhat more. This finding must be understood in the context of rural needs and costs. Even with a greater per capita share of Title IVB dollars, a small rural district can purchase fewer library books or pieces of instructional equipment than can a populous district with a lower per capita grant. Given that the locally-supplied instructional resource base may also be poorer in the small rural district, rural students may remain in a relatively

disadvantaged position, despite their greater share of Title IVB funds.

A different picture emerges from the competitive grant system of Title IVC. Using our least refined definition, nonmetropolitan districts receive a proportional or higher share of Title IVC funds in our sample states. However, results for the other finer-grained definitions reveal a mixed pattern. Rural districts in California, Kansas, and Vermont receive Title IVC per capita funds that are below and, in some cases, considerably below the amount received by non-rural districts; the reverse holds true for Maryland, Georgia, and North Carolina. It appears that rural districts fare more poorly in those states that award fewer, larger-sized Title IVC grants. It therefore appears that it might be wise to provide a setaside within Title IVC for a competition only among rural districts who had not recently received grants. The setaside might enable a relatively large number of districts to develop the administrative capacity, experience, and motivation to participate, at some future time, in more general competitions.

Our Title IVC analysis clearly demonstrates that using finer-grained definitions of ruralness yields a different picture of federal funding patterns than does the usual metropolitan/nonmetropolitan distinction. Future analyses of federal funding patterns should examine distribution of funds among more and less rural places within nonmetropolitan counties, rather than rely on the simpler urban-suburban nonmetropolitan classification.

I. BACKGROUND FOR THIS STUDY

Rural advocates have claimed in recent years that rural students do not get their "fair share" of the federal education dollar and that federal programs, as presently operated, are sometimes poorly tailored to rural conditions (Sher, 1978). Critics cite ways in which this presumed anti-rural bias of federal education policy may be manifested in programs with different types of funding mechanisms. First, in formula-based programs, the funding formula may be constructed in such a way as to limit the allocations to rural schools and districts. For example,

program formulas that set a minimum district enrollment as a criterion for eligibility might fall in this category. Second, programs that award funds on the basis of competitive applications, rather than a funding formula, may place rural districts at a competitive disadvantage. Small and isolated rural districts, it is claimed, lack the administrative personpower and grant-writing expertise to develop winning proposals. Where, after all, would the rural educator serving as superintendent, principal, and teacher find the time to sit down and complete a lengthy and complicated application?

Unfortunately, there has been little analysis that sheds light on claims of anti-rural bias in the allocation of federal education funds. The few reported studies present a mixed picture. Using 1970 data, Berke et al. (1976) found that the distribution of federal funds among urban, suburban, and rural (actually nonmetropolitan) districts varied considerably across states. "In heavily urban states such as New York, Ohio, Massachusetts, and Michigan, federal aid focuses primarily on central cities. In states with a more mixed degree of urbanism (Colorado, California, Kansas, Texas, Virginia) the central cities, suburban and rural areas tend to be more balanced in aid distributions. Finally, in rural states such as Mississippi, North Carolina, and Washington, the balance shifts toward rural areas" (Berke et al., 1976, p. 98). Ginsburg (1975) examined national figures and found the per pupil federal revenues in nonmetropolitan districts to be $67.23, as compared with $75.73 in center cities. Regional patterns also varied in ways similar to that reported in the Berke et al. analysis: Nonmetro students received much less on the average than their urban counterparts in the Northeast ($32.42 vs. $105.25); somewhat less in the Midwest ($44.55 vs. $68.96); and somewhat more in the South ($92.38 vs. $73.60) and the West ($79.08 vs. $64.04) (Ginsburg, 1975, Appendix tables).

These two studies suggest, on the whole, that rural districts are not systematically discriminated against in terms of federal aid on a national basis. A problem with these studies, however, is that both use nonmetropolitan status (places outside Standard Metropolitan Statistical Areas (SMSAs)) as their indicator of ruralness. This

category includes cities with populations of up to 50,000--places not usually considered rural. If these urbanized nonmetropolitan districts were capturing large amounts of federal funds, and more rural nonmetropolitan districts were receiving few federal grants, analyses based on nonmetropolitan status (such as those by Ginsburg and Berke et al.) might fail to reveal an anti-rural funding bias. What we need is an analytic way of identifying those rural districts that might be missing out on federal funds for the types of reasons cited above. To our knowledge, there have been no studies of federal funding patterns using such finer-grained definitions of ruralness. This is the analysis gap we wanted to begin to fill.

II. CONCEPTUAL AND METHODOLOGICAL APPROACH

For the purposes of this pilot study, we decided to examine whether rural districts get a "fair share" of funds for a few federal programs in a small sample of states. Our preliminary work was designed to develop analytic strategies that could later be applied to other programs on a larger scale.

In this section, we describe, in turn: our approach for identifying rural districts, our sample of states, the two federal programs we analyzed, and the way in which we operationalized the concept of equity.

DEFINING RURAL

Most of us have a mental image of rural life, consisting of small, sparsely-settled communities located far from the noise and pace of the city. If asked to decide about specific places, on a one by one basis, we would probably be able to identify them as either rural or non-rural. The problem arises in developing analytic categories that can be used, at a distance, to classify communities with which we are unfamiliar as either rural or not. For the purposes of this study, we accepted that there is no definitive definition of rural and decided to experiment with a number of alternative definitions in order to see how sensitive the results of our analyses would be to the particular way in which rural was defined. This section describes the four

definitions we used to classify districts as rural.*

The first definition classifies as rural all school districts in nonmetropolitan counties, that is, counties that are not part of SMSAs. An SMSA, essentially, consists of a county with a city of at least 50,000 people plus the surrounding counties that are integrated into the economic life of that city. In other words, large (50,000 or more residents) cities and their suburbs are classified by the U.S. Census Bureau as metropolitan; the rest of the country is classified as nonmetropolitan.

Because this nonmetropolitan classification includes cities of up to 50,000 residents, which does not coincide with generally accepted notions of ruralness, we have also run analyses using three finer-grained definitions designed to distinguish between more and less rural parts of nonmetropolitan areas. Two of these definitions distinguish among nonmetropolitan counties, classifying some as rural and others as nonrural and identifying as rural all school districts in the rural counties. The third definition distinguishes among school districts within a given nonmetropolitan county, based on the percentage of

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*Our data on district characteristics came from four sources. The Fifth Count of the 1970 Census, which is configured by school districts, provided demographic data such as size of population, percentage of district residents living in places defined as rural by the Census Bureau, and poverty figures. Unfortunately, the Census Bureau reports such demographic data only for school districts with enrollments over 300 students. This means, of course, that these data are missing for many of the very districts we are most interested in, the small, rural ones. (In California, for example, about 400 of the 1027 school districts lack these demographic data. This precluded our performing, for California, a district-level analysis comparing funds received by districts with different percentages of rural population.)

We also used the National Center for Education Statistics ELSEGIS-School District Universe Tape for 1976-77, extracting data on school district Average Daily Membership (ADM) and Metropolitan Status (urban, suburban, nonmetropolitan). The third and fourth sources of data allowed us to code districts on two of the definitions of ruralness described in this section. The Municipal Year Book 1976 provided us a list of all counties containing cities of population 10,000 or larger. Data on sparsity/metropolitan adjacency status came from a classification of counties developed by demographer Calvin Beale of the U.S. Department of Agriculture.

their residents who meet the Census Bureau's definition of rural (see below).

The first of the two county-based definitions, which we call the "non-urbanized county" definition, considers as rural only those nonmetropolitan counties that contain no city with a population of 10,000 or more. Under this definition, all school districts in such non-urbanized counties are classified as rural. If, on the other hand, a nonmetropolitan county has a city of at least 10,000, all of the school districts in that county are deemed non-rural.

The second county-based definition uses a scheme developed by the U.S. Department of Agriculture for classifying nonmetropolitan counties on a scale of urban influence that reflects both the degree of urban concentration within the county and its proximity to a metropolitan area (U.S. Department of Agriculture, 1974). Nonmetropolitan counties are assigned to one of six categories depending on their number of urban residents* and whether or not they are adjacent to an SMSA. Table 1 gives the precise definitions for each of the six nonmetropolitan county types according to this scale, which we refer to as the Beale Scale, after its developer Calvin Beale.

Table 1

Nonmetropolitan County Type[a]

4. Urbanized, adjacent: counties contiguous to SMSAs and having 20,000 or more urban residents, 1970
5. Urbanized, not adjacent: counties not contiguous to SMSAs and having 20,000 or more urban residents
6. Less urbanized, adjacent: counties contiguous to SMSAs and having 2500 to 19,999 urban residents
7. Less urbanized, not adjacent: counties not contiguous to SMSAs and having 2500 to 19,999 urban residents
8. Rural, adjacent: counties contiguous to SMSAs and having less than 2500 urban residents
9. Rural, not adjacent: counties not contiguous to SMSAs and having less than 2500 urban residents

[a]In this classification scheme, categories 0 through 3 (not included in this table) describe metropolitan counties in decreasing order of size.

*Residents are classified as "urban" if they live in an incorporated or unincorporated place or township of 2,500 or more inhabitants.

An advantage of this Beale classification scheme, for our purposes, is that it allows us to conduct analyses that separate our two dimensions of ruralness--population sparsity and geographic isolation from metropolitan centers. In the analysis reported in Section III, Table 4, we wanted to see how geographically isolated nonmetropolitan districts fared in terms of Title IVB and IVC funding. Our third definition of rural therefore consists of school districts in counties of type 7 and 9--that is, nonmetropolitan counties having fewer than 20,000 urban residents that are not adjacent to an SMSA.* We refer to this as the "isolated county" definition.

Our fourth definition classifies school districts within nonmetropolitan counties according to the percentage of the district's population that meet the Census criterion of rural: persons residing in places of less than 2500 residents. Under this definition, we consider as rural only those nonmetropolitan school districts with 100 percent rural population. In other words, if a school district draws any students from communities of greater than 2500, we would consider that district to be non-rural. Note that this is the only one of our four definitions that relies on school district level rather than county level data. We refer to it as the "sparsely-settled district" definition. As noted above, however, census data on districts with enrollments below 300 are not reported, which prevented our classifying some districts on this percentage rural definition.

SAMPLE OF STATES

In selecting a sample of states for this analysis, we wanted states that varied in degree of ruralness (predominantly rural, mixed, predominantly urban), type of school district organization (county or local districts), and region of the country. Previous research had suggested that the flow of federal funds to rural areas might relate

*Counties of type 5 are also not adjacent to SMSAs. Despite their geographical isolation, however, they have a relatively high level of internal urbanization (20,000 or more urban residents) and we did not, therefore, choose to include them in this definition of rural.

to the urban or rural character of the state. We also felt that comparing states with county-wide rural districts to those with local rural districts might help to separate out the effects of small school district size--and its accompanying administrative staff limitations--from possible effects of ruralness per se.

The states we selected are Vermont, North Carolina, Georgia, Kansas, Maryland, and California. Table 2 displays some basic information about these states. Table 3 shows the number and percentage of school districts and students in our sample states that qualify as rural under each of the four definitions just described.

SAMPLE OF PROGRAMS

The two federal programs we selected for the Fiscal Year 1977 analysis are the two parts of Title IV of The Elementary and Secondary Education Act of 1965, as amended by Section 401 of The Education Amendments of 1974.* In FY 1977, Title IV, Part B, "Libraries and

*Our source of funding data was the third (FY1977) cycle of the Section 437 Data Tape, obtained from the U.S. Office of Education. Under the annual Section 437 data collection, each State Department of Education reports to USOE on all state awards of funds from each of two dozen federal education programs. In the FY 1977 report, each state was asked to report two figures for each district under each program: (1) what size grant (if any) that district had been awarded for FY 1977, and (2) how much it had expended out of awards (if any) from FY 1976 funds. We chose to base our analyses on the size of state grants for the upcoming fiscal year, rather than district expenditures from the previous fiscal year, because it seemed to capture better what we were really interested in--how much the state gives to whom.

We should note, however, that even the grants data we decided to use are not free from problems. USOE's instructions for the 437 Data Collection request the following for each program. "For each grant made by the State in FY 1977, identification of the recipient agency and grant total amount (USOE, p. 4). Conversations with state department staff--the people who fill out these forms--in several of our sample states, however, revealed confusion about whether "grant made by the State in FY 1977" means "grant made by the State in FY 1977 from FY 1977 monies" or "grant made by the State in FY 1977 from all monies, including carryover funds." Our strong suspicion is that this item is being interpreted differently across states and, in some cases, even across programs within the same state. In one state, Vermont, we learned that the Title IVC grants reported on the 437 Data Tape for 1977 did not coincide with the State Department's records of Title IVC project grants for that year. In this single case, we substituted the state data for the 437 data in our analyses.

Table 2

CHARACTERISTICS OF SAMPLE STATES

State	Region	Urban Rural Status	Percentage Rural Population	Rural Population*	Total Population*	School District Organization	Number of School Districts**	Total Average Daily Membership 1976-77**
Vermont	Northeast	Rural	68%	301,441	444,732	Local Districts	273***	104,609
North Carolina	South	Rural	55%	2,796,891	5,082,059	County Districts	145	1,165,964
Georgia	South	Mixed	40%	1,821,501	4,589,575	Mixed City and County Districts	188	1,068,854
Kansas	Midwest	Mixed	34%	761,708	2,246,578	Local Districts	307	442,537
Maryland	Mid-Atlantic	Urban	23%	918,464	3,922,399	County Districts	24	870,974
California	West	Urban	9%	1,817,089	19,953,134	Local Districts	1,037****	4,682,839

*1970 Census.

**ELSEGIS-Public School Districts Tape, 1976-77.

***Vermont's 273 local school districts are organized into 57 Supervisory Unions.

****California also has 49 County School Districts that serve as intermediate education agencies.

Table 3

DISTRIBUTION OF RURAL STUDENTS AND DISTRICTS

Alternative Definitions of Rural

Definition*	Number of Districts	Percentage of Districts	Number of Students	Percentage of Students
		California		
Non-metro County	397	38%	353,999	8%
Non-urbanized County	157	15%	83,682	2%
Isolated County	103	10%	44,274	1%
Sparsely-settled District**	--	--	--	--
		Maryland		
Non-metro County	14	58%	133,741	15%
Non-urbanized County	9	38%	52,792	6%
Isolated County	7	29%	45,374	5%
Sparsely-settled District	4	17%	22,253	3%
		Kansas		
Non-metro County	262	85%	247,561	56%
Non-urbanized County	187	61%	116,261	25%
Isolated County	172	56%	126,767	29%
Sparsely-settled District	160	57%	87,088	20%
		Georgia		
Non-metro County	152	81%	477,011	45%
Non-urbanized County	113	60%	269,693	25%
Isolated County	79	42%	200,784	19%
Sparsely-settled District	57	30%	121,705	11%
		North Carolina		
Non-metro County	117	81%	681,054	58%
Non-urbanized County	68	47%	339,414	29%
Isolated County	39	27%	187,389	16%
Sparsely-settled District	43	31%	172,504	16%
		Vermont		
Non-metro County	273	100%	104,609	100%
Non-urbanized County	117	43%	32,062	31%
Isolated County	214	78%	63,445	61%
Sparsely-settled District	253	93%	67,783	65%

*Non-metro County: School districts in counties outside SMSAs.
Non-urbanized County: School districts in nonmetropolitan counties with no place of 10,000 population or more.
Isolated County: School districts in nonmetropolitan counties with fewer than 20,000 urban residents that are not adjacent to an SMSA.
Sparsely-settled District: Nonmetropolitan school districts with 100 percent census rural population, i.e., drawing no students from communities greater than 2,500.

**Due to the suppression of census data for small districts, these data are not available for California. Later tables reflect California analysis based on 100 percent rural counties. Of California's 58 counties, 7 are 100 percent rural, accounting for 12,179 or .26 percent of the state's student enrollment.

Learning Resources," provided funds to school districts for library books, instructional equipment and materials, guidance counseling and testing services.* Title IV, Part C, "Education Innovation and Support," provided funds for a wide range of locally proposed innovative educational projects as well as funds for strengthening state departments of education.

Title IVB and Title IVC are both state-administered federal programs and represent the two basic types of funding mechanisms in which we are interested--formula-based and grants competitions. In Title IVB, each state has discretion within federal guidelines for devising a formula for allocating funds among local education agencies. In addition to providing a Title IVB allocation to every district on the basis of its general enrollment, states are charged to provide additional monies to districts for high cost students and to districts that demonstrate high tax effort. States determine their own high cost student factors. In Fiscal Year 1977, thirty-one states, including five of the six in our sample (all but North Carolina), used population sparsity, small district size, or some similar criterion as a high cost factor for which districts received a bonus allocation. By doing so, they presumably were addressing the needs of rural areas. Enrollment of low-income and non-English speaking students were the two other most common high-cost factors in 1977 state formulas.

In Title IVC, school districts submit proposals to the state for innovative projects and, through a competitive process that varies from state to state, grants are awarded to some districts. At any given time, a district may have none, one, or several projects funded under Title IVC. The Section 437 data that we analyzed reflects total Title IVC funds received by a district in a given year. It does not tell us how many separate projects this represents, nor does it tell us whether the district applied for Title IVC funds that it did not get, i.e., whether it submitted any unsuccessful proposals. Apropos

*Title IV was amended in 1978 to remove the guidance counseling and testing component from Title IV, Part B and establish it as a separate Part D.

of rural treatment under Title IVC, it is worth mentioning that the Title IV legislation addressed this problem by instructing state departments of education to provide special assistance to districts which, "for reason of small size or isolation have difficulty competing." States have devised different strategies for complying with this provision.

DEFINING FAIR SHARE

It is hard to judge whether rural districts get a "fair share" of federal education funds. The relevant literature generally discusses two approaches to this problem of equity.

One approach to defining equity is based on needs: each district should receive a share of federal funds according to the needs of its students, the cost of teaching them, and the district's ability to meet these needs and costs. Such a need and cost based measure would be highly desirable. Indeed, we believe that rural areas have special needs and costs quite different from urban areas which federal and state policymakers have not always understood. We hope to identify some of these unique rural needs in future research. However, it seems clear that an adequate, operational measure of need does not currently exist for either urban or rural areas.

The second approach, in its purest form, uses "equalized funding per pupil" as an equity standard. In terms of our analysis, this criterion asks whether rural areas receive federal dollars in proportion to their share of the student population. If 30 percent of a state's students attend school in rural districts, for example, do these districts receive 30 percent of federal program funds? This equal funding per pupil measure has the practical advantage of being easily operationalized. Our analysis, therefore, uses this measure rather than the more desirable, but impractical, need-based standard of equity.

We need to interpret the findings based on this equal funding per pupil standard with due caution. We will interpret a significantly low share of funds (compared to that expected on the basis of student enrollment) to rural districts as evidence of an anti-rural bias in

the funding patterns.* But we will not interpret an equal or greater share to mean an absence of a rural funding problem. In these cases, it is necessary to balance the quantitative findings with judgments and hypotheses drawn from our field work experience about the unique needs and costs of rural education.

III. PRELIMINARY RESULTS: FEDERAL FUNDING PATTERNS FOR TITLE IVB AND IVC

This section presents our preliminary results for the sample of six states and two federal programs. We will treat our basic concern with the share of federal funds that rural areas receive by analyzing a series of operational questions:

- How do states distribute federal funds between rural and non-rural school districts and within rural areas?
- Do funding patterns vary for the different types of states?
- How sensitive are the findings to alternative definitions of ruralness?
- Do funding patterns differ for the formula grant program Title IVB compared to the competitive grant program Title IVC?

FINDINGS FOR TITLE IVB

Table 4 presents preliminary results of data analysis designed to examine the first three of the above questions. The table displays a measure of funding equality for the Title IVB program in FY 77 using four definitions of rural in each of our six states. The measure used in the table is the following ratio:

$$\frac{\text{percent of program dollars to rural districts}}{\text{percent of state enrollment in rural districts}}$$

If this ratio equals one, then students in rural districts are receiving a share of federal program dollars proportional to their enrollment and equal to that received by students in nonrural districts. For example, if 30 percent of a state's students attend school in rural

*A disproportionately small share of funds might not be evidence of anti-rural bias in some instances, for example, if a federal program were aimed at target groups more likely to be found in urban areas. However, this is not the case with Title IVB and IVC.

Table 4

RATIOS OF PERCENT RURAL SHARE OF TITLE IVB FUNDS
TO PERCENT RURAL ENROLLMENT
FY 1977

Definitions of Rural Districts	California	Maryland	Kansas	Georgia	North Carolina	Vermont
Nonmetropolitan Counties	1.19	1.10	.99	1.04	1.16	(a)
Non-Urbanized Counties*	1.23	1.35	1.00	1.22	1.26	1.40
Isolated** Counties	1.30	1.19	.99	1.21	1.31	1.07
Sparsely Settled Districts***	--	1.37	.98	1.50	1.36	1.22

[a]All counties in Vermont are nonmetropolitan.

*School districts in nonmetropolitan counties with no place of 10,000 population or more.

**School districts in nonmetropolitan counties with fewer than 20,000 urban residents that are not adjacent to an SMSA.

***Nonmetropolitan school districts with 100 percent rural population, i.e., drawing no students from communities greater than 2,500. Due to the suppression of census data for small districts, this analysis could not be carried out for California. The ratio for the seven counties in California with 100 percent rural population is .83.

districts and rural districts receive 30 percent of program funds, the ratio in Table 4 would equal one. If the ratio is less than one, rural students are being shortchanged; if the ratio is greater than one, they are getting more than their proportional share of the funds.* This summary ratio reflects the overall treatment of all rural districts and there may be considerable variation among rural districts. That is, while all rural districts combined may be receiving funds in proportion to their share of the state's enrollment, some rural districts may be getting more than a proportional fair share and others less. We return below to this issue.

Looking at the first definition of rural, based on nonmetropolitan counties, Table 4 shows little difference across the states with ratios around the equal share level of 1.00. The low is Kansas with a ratio of .99 and the high is California with a ratio of 1.19. (Vermont has only nonmetropolitan counties.) Similar findings hold for all our definitions of rural. In FY 77, rural districts were generally getting at least as much Title IVB funds per enrolled student as non-rural districts, regardless of whether rural districts are thought of as being in non-urbanized counties that have no place greater than 10,000 population, in isolated counties not adjacent to metropolitan areas, or in sparsely settled areas. This finding holds for the urban states (California and Maryland) as well as the rural states (North Carolina and Vermont) and those states having an intermediate rural/urban status (Kansas and Georgia).

The nature of the state Title IVB funding formulas explain why rural districts receive a higher allotment per student enrollment. Each state uses a different allocation formula within the broad guidelines established by the ESEA Title IV regulations. With the exception of Vermont, which awards only 40 percent of its state allotment on the

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*This equal share ratio is equivalent to the ratio:

$$\frac{\text{dollars per enrolled student in rural districts}}{\text{dollars per enrolled student in the state}}$$

We will use both the "equal share" ratio and the "dollars per enrolled student" ratio in this Note.

basis of district enrollment, the other states in our sample distribute approximately 70 percent of their funds on an enrollment basis with additional funds provided for high tax effort districts or high cost children. The high cost factors are defined differently by the states, but they generally work to the advantage of rural districts either explicitly or implicitly. For example, Maryland's high cost factor explicitly includes children enrolled in small school districts (which are mainly rural); this adjustment for small size is one reason rural districts receive more per student than nonrural districts. In contrast, North Carolina defines high cost children solely in terms of poverty criteria and does not explicity include an adjustment for rural areas. Nevertheless, North Carolina's rural districts receive a greater proportionate share of Title IVB funds because of the high correlation (.47) between percent poverty and percent rural in North Carolina.

The findings from Table 4 are reinforced by a further division of the data within nonmetropolitan areas. Table 5 compares, for nonmetropolitan counties only, the overall funding per student of more rural districts to that of less rural districts. Once again, the high cost factors work in the direction of giving the more rural districts a higher per student funding of the Title IVB allotment than other nonmetropolitan districts, and this funding holds by and large for all definitions and across all our sample states.

A note of caution is in order lest this finding be misinterpreted to mean that rural districts are unfairly advantaged in Title IVB. To provide a particular learning resource or service, a small school or district often incurs a higher per student cost than a large school or district.* Such diseconomies of small scale provide a basis for arguing that small rural schools or districts should in fact

*For example, a film projector costs the same amount whether it serves 20 students or 500, but the per student purchase cost is obviously much higher in the former case. So, in effect, a program that provides the same number of dollars per student for every student buys less in a 200-student rural district than in its larger urban or suburban counterpart.

Table 5

TITLE IVB DOLLARS PER STUDENT IN NONMETROPOLITAN DISTRICTS
FY 1977

	California	Maryland	Kansas	Georgia	North Carolina	Vermont
State Average	2.68	3.13	3.19	4.40	2.94	2.93
Nonmetropolitan Average	3.18	3.45	3.16	4.58	3.42	2.93
Nonmetropolitan districts in:						
Urbanized counties (with a place of 10,000 residents)	3.18	2.94	3.14	3.53	3.13	2.42
Non-urbanized counties (with no place of 10,000 residents)	3.29	4.23	3.18	5.39	3.71	4.11
Urbanized counties (with at least 20,000 urban residents)*	3.16	3.07	3.14	3.57	3.31	2.49
Less urbanized counties (adjacent to SMSAs, less than 20,000 urban residents)**	2.90	3.88	3.18	4.22	3.[illegible]	3.20
Isolated, less urbanized counties *not* adjacent to SMSAs, less than 20,000 urban residents)***	3.64	3.71	3.17	5.31	3.84	3.59
Less sparsely-settled districts (<100% census rural	(****)	3.29	3.17	3.89	3.21	1.89
Sparsely-settled districts (100% census rural)	(****)	4.28	3.12	6.59	4.05	3.52

*Beale categories 4 and 5.

**Beale categories 6 and 8.

***Beale categories 7 and 9.

****Due to the suppression of census data for small districts, this analysis could not be carried out for California.

receive a larger share of funds than their enrollment represents. Had the data shown that rural districts received less than an equal share of Title IVB funds, there would have been prima facie cause for concern about anti-rural bias. Our finding that they generally receive more than an equal per capita share, however, does not establish that rural districts are receiving funds adequate to their needs or costs. Further investigation (of diseconomies of small scale and other special rural circumstances) is required to treat this more fundamental issue.

FINDINGS FOR TITLE IVC

An entirely different picture emerges when we turn from the formula grant program in Title IVB to the competitive grant system in Title IVC. Table 6 presents the proportionate share ratios for the allocation of FY77 Title IVC funds in each of our sample states for the four definitions of rural. Once again, if the ratio is less than one, then rural districts are receiving less than a proportionate share of the funds based on their student enrollment.

Using the least refined definition, the nonmetropolitan counties, Table 6 shows ratios at or about 1 for all the states. However, the results for the other definitions reveal a mixed picture. California, Kansas, and Vermont have ratios generally below 1, whereas Maryland, Georgia, and North Carolina have ratios above 1. In other words, rural districts in the former states receive Title IVC funds that are below and, in some cases, considerably below the proportional amount received by non-rural districts; the reverse holds for the latter states.

Table 7 provides more detailed evidence supporting the same finding by displaying the Title IVC funds per student for different definitions of ruralness within nonmetropolitan areas. At this finer-grained level also, we see that the different states reflect different balances between rural and non-rural Title IVC funding.

In California, for example, the average Title IVC dollars per student across the state is $2.60 and the average across nonmetropolitan areas is $2.86 (yielding the 1.10 ratio of nonmetropolitan to state averages shown in Table 6). Focusing only on nonmetropolitan

Table 6

RATIOS OF PERCENT RURAL SHARE OF TITLE IVC FUNDS
TO PERCENT RURAL ENROLLMENT
FY 1977

Definitions of Rural Districts	California	Maryland	Kansas	Georgia	North Carolina	Vermont
Nonmetropolitan Counties	1.10	3.41	0.99	1.51	1.26	(a)
Non-Urbanized Counties*	0.15	3.75	0.77	1.54	1.61	.73
Isolated** Counties	0.12	4.34	0.88	1.51	1.10	0.86
Sparsely Settled Districts***	--	1.37	0.37	2.17	1.62	1.04

[a]All counties in Vermont are nonmetropolitan.

*School districts in nonmetropolitan counties with no place of 10,000 population or more.

**School districts in nonmetropolitan counties with fewer than 20,000 urban residents that are not adjacent to an SMSA.

***Nonmetropolitan school districts with 100 percent rural population, i.e., drawing no students from communities greater than 2,500. Due to the suppression of census data for small districts, this analysis could not be carried out for California. The ratio for the seven counties in California with 100 percent rural population is .59.

Table 7

TITLE IVC DOLLARS PER STUDENT IN NONMETROPOLITAN DISTRICTS

FY 1977

	California	Maryland	Kansas	Georgia	North Carolina	Vermont
State Average	2.60	1.57	3.02	2.42	2.65	3.45
Nonmetropolitan Average	2.86	5.36	2.99	3.68	3.35	3.45
Nonmetropolitan districts in:						
Urbanized counties (with a place of 10,000 residents)	3.63	5.01	3.58	3.59	2.42	3.86
Non-urbanized counties (with no place of 10,000 residents)	0.39	5.89	2.32	3.74	4.27	2.53
Urbanized counties (with at least 20,000 residents)**	3.71	2.79	2.88	1.23	1.89	4.57
Less urbanized counties (adjacent to SMSAs, less than 20,000 urban residents)***	1.07	8.75	4.23	4.76	4.99	2.43
Isolated, less urbanized counties (*not* adjacent to SMSAs, less than 20,000 urban residents)****	0.32	6.81	2.67	3.68	2.91	2.96
Less sparsely-settled districts (<100% census rural)	2.91*	5.36	4.13	3.14	3.23	3.18
Sparsely-settled districts (100% census rural)	1.52*	5.32	1.15	5.25	4.44	3.61

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* Computation based on county (rather than district) percentage of rural residents.

** Beale categories 4 and 5.

*** Beale categories 6 and 8.

**** Beale categories 7 and 9.

districts, we see that California districts in the twenty-one truly non-urbanized counties having no place of 10,000 residents received only $.39 per student in Title IVC compared to $3.63 per student in districts in more urbanized counties (which are nonetheless non-metropolitan). Similarly, using another definition of rural, California districts in isolated, less urbanized counties received $.32 per student while districts in the urbanized nonmetropolitan counties having at least 20,000 urban residents received more than ten times as much per student ($3.71).

It is also important to note that both the county's population size and its relative geographic isolation affect its share of Title IVC funds. Thus, districts in California's less urbanized counties (those with fewer than 20,000 urban residents) received less than one-third of the per student funding for districts in the more urbanized counties ($1.07 compared to $3.71) if they were adjacent to an SMSA and less than one-tenth as much if they were not adjacent to an SMSA. Indeed, districts in relative isolation--i.e., not in a county adjacent to an SMSA--tend to be at a competitive disadvantage in receiving a proportionate share of Title IVC funds in less urbanized situations for almost all our sample states, as Table 8 suggests.

Returning to the patterns shown in Table 6, California and Kansas provide fewer Title IVC funds to their more rural districts than one would expect on the basis of rural student enrollment, particularly when contrasted to Georgia and North Carolina. Why is this the case? We do not, at this time, have a full answer because we have additional fieldwork to complete. We can offer an hypothesis, however: the disproportionately small share of Title IVC funds received by rural districts in California and Kansas is a side effect of their concentrated funding strategy.

Let us explore this hypothesis. Each state chooses, explicitly or implicitly, a strategy for awarding grants from its fixed sum of Title IVC funds. The funding strategy intrinsically involves a trade-off between concentrating funds in fewer places and spreading grants to more places. A state choosing to concentrate funding will be electing

Table 8

TITLE IVC FUNDS PER STUDENT IN LESS URBANIZED NONMETROPOLITAN COUNTIES
Population Sparsity vs. Geographic Isolation

	California	Maryland	Kansas	Georgia	North Carolina	Vermont
State Average	2.60	1.57	3.02	2.42	2.65	3.45
Nonmetropolitan Average	2.86	5.36	2.99	3.68	3.35	3.45
Districts in counties with 2,500 to 19,999 urbanized residents that are:						
Adjacent to SMSAs (Beale 6)	0.81	7.63	5.02	4.81	4.44	2.43
Isolated, *not* adjacent to SMSAs (Beale 7)	0.35	8.91	3.74	3.88	2.60	3.54
Districts in counties with *fewer* than 2,500 urbanized residents that are:						
Adjacent to SMSAs (Beale 8)	2.63	10.24	0.00	4.47	8.49	--*
Isolated, *not* adjacent to SMSAs (Beale 9)	0.00	0.00	0.00	3.06	3.57	1.55

*No districts fall in this category.

for a more competitive award system (i.e., in a fair competition, the probability of any given district receiving a grant would be lower if fewer grants were available). In FY 1977, California and Kansas chose to concentrate their Title IVC funding to a greater extent than other states in our sample. Thus California and Kansas, respectively, awarded grants to 14 percent and 6 percent of their districts or other administrative units compared to 44 percent and 53 percent for North Carolina and Georgia.* The larger numbers of districts in California and Kansas undoubtedly account partly for this discrepancy, but it is also the case that California and Kansas, on the average, provided more money to those districts receiving Title IVC funds than did Georgia and North Carolina.

In FY 1977, only 18 of Kansas' 307 districts were funded by Title IVC. Of these, six received planning grants of $3,000, designed to support development of full-scale proposals for larger projects. The remaining twelve districts received funds ranging from $17,500 to $440,000 (in Wichita, the largest city), with an average of $110,000 per district (district totals in all states may represent funding for more than one Title IVC project). In FY 1977, 150 of California's 1,086 districts (including 21 of its 49 intermediate County Districts) received funds from Title IVC. These awards ranged from $1,579 to $1,900,000 (in Los Angeles), with the average funded district receiving about $84,000.** In contrast, Georgia awarded Title IVC funds to 99

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*California has 49 special county districts, of which many serve as intermediate education agencies in rural areas. Twenty-one of these county districts received Title IVC grants in FY 1977. Thus the number of local districts benefitting from Title IVC projects was greater than the 14 percent of districts administering grants. These county grants were included in our calculations that show a disparity between per capita grants to rural and non-rural

**California's Title IVC awards consist of both developmental projects (in both general and specialized categories), which tend to average about $50,000 to $60,000 and smaller adoption grants (to allow districts to implement projects that have been developed elsewhere), which are usually for $10,000 or less. In the past few years, California has been increasing the proportion of its Title IVC funds allocated to adoptions as opposed to developmental projects. In FY 1978, approximately $1 million of $5 million in new project grants went for

of its 188 districts, with levels of funding ranging from $5,000 to $268,000; the average funded district received approximately $26,000. And 64 of North Carolina's 145 (county-wide) districts received Title IVC awards ranging from $5,000 to $160,000, with the average district receiving about $47,000.

Several thus far untested reasons may explain why a more competitive grant system (fewer larger-sized grants awarded) can work against rural districts. First, rural districts may be less likely to apply for a Title IVC grant. For example, despite the considerable effort California's State Department of Education expends in encouraging districts to apply for funding, 58 percent of eligible LEAs have not applied for Title IVC funds in the last five years (California State Department of Education, 1978), and most rural districts fall in this group. Rural districts may be less likely to apply because of their isolation (as suggested earlier, districts in counties not adjacent to SMSAa receive proportionately less funding), which may make them less aware of funding opportunities and less accessible to state staff who offer technical assistance in proposal preparation. Moreover, rural districts often lack the administrative skill, experience, resources, and machinery to apply and may be skeptical about their chances of winning. Of course, rural districts also may choose not to apply for Title IIIC in greater proportion than urbanized districts because they are not so interested in innovations. We intend to investigate some of these hypotheses in our fieldwork.

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the smaller-sized adoption grants, and in FY 1979 this will double to $2 million. In FY 1978, the state reserved $150,000 of adoption funds for districts with enrollments below 1,000. It also set aside $100,000 of general development project money for districts that were never before funded under the program. According to a member of California's Title IVC staff, this setaside encouraged districts that hadn't competed before to submit applications, and such districts captured 9 of the 41 new general grants that year (representing between $300,000 and $400,000, considerably more than the $100,000 setaside). California's increasing use of smaller adoption grants and its special setaside provisions for small and never-before-funded districts may be improving the relative position of rural districts in terms of Title IVC funding over that refelcted in the FY 1977 data we analyzed.

In addition to the reduced likelihood of application, rural districts may in fact fare less well in competition once they have applied. We simply do not now have sufficient data to test this hypothesis empirically. Two reasons are generally advanced in claims that rural districts are at a competitive disadvantage after application. First, they may produce lower "quality" proposals because of their administrative deficiencies. Second, their proposals may be judged to have less merit because of an urban bias, often implicit, among proposal reviewers. For example, Vermont uses a criterion of innovativeness in evaluating Title IVC applications that require a proposed project to represent an educational practice that is new to the state, not just to the district itself (which is how innovation is defined in some other states). Because rural districts tend to be slow adopters of innovations, as research on diffusion informs us, Vermont's innovation test tends to work against more isolated, rural districts.*

In summary, in contrast to Title IVB, the Title IVC funding picture is mixed, as soon as rural definitions more refined than non-metropolitan are used. Isolated districts tend to receive less funding in proportion to their enrollment even in cases where the overall funding pattern favors rural areas. The more competitive systems in our small sample disburse a disproportionately low share of Title IVC funds to rural districts, particularly under stricter definitions of rural.

IV. INTERIM CONCLUSIONS AND RECOMMENDATIONS

As befits a progress report, our findings should be treated with caution. This cautionary note is particularly appropriate because this study was designed to be a pilot effort involving only a small sample

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*Under the 1978 Education Amendments, the emphasis on innovation per se in Title IVC projects has been dropped, with local education agencies being charged, instead, to develop "activities designed to address serious educational problems in elementary and secondary schools." This change might be expected to help correct any de facto bias against rural districts in states that have been using a strict criterion of innovativeness such as Vermont's.

of states and federal programs. These caveats notwithstanding, we can offer tentative conclusions about federal funding patterns in rural areas. Moreover, the present analysis suggests several recommendations for policy and research, which we offer in the hopes that they will be systematically considered by subsequent studies.

1. Title IVB funding formulas are operating to provide rural districts in our sample states with at least a proportional share of federal funds and in most cases somewhat more. As we have seen, inclusion of an explicit small school or sparsity factor in the funding formulas of five of our six states tends to give rural areas more dollars per student than non-rural areas; in the sixth state, North Carolina, use of economic disadvantage as a high cost factor has the same effect, because of the high incidence of poverty in rural areas.

We do not know if the finding for North Carolina holds for the twenty other states that do not include small size or sparsity as a high cost factor in their funding formulas. It would depend on the correlation between the high cost factors that they use and rurality. A member of the federal Title IVB staff told us that federal officials have attempted to influence more states to include sparsity or small size in their formulas in order to help compensate for the diseconomies of small scale in rural districts. Apparently some states have been reluctant, perhaps because those states are trying to encourage consolidation among small rural districts. In these states, rural districts might be relatively worse off in terms of Title IVB funding than in the states we examined. Given the existing balance of power in the federal education system, Office of Education officials have relatively little leverage to alter state decisions about funding formulas. Where federal staff are unable to persuade a state to direct more resources to small rural districts, it would probably require appropriate change in the Title IVB legislation to alter the situation.

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must be understood in the context of rural needs and costs. Even with a greater per capita share of Title IVB dollars, a small rural district receives much less money than a populous district, and consequently can purchase fewer library books or less instructional equipment than can a large district with a lower per capita grant. Small rural districts are likely to have less state and local school funds than urban districts; therefore, rural students may remain relatively disadvantaged, even though they receive a greater share of federal aid. Compared to urban and suburban districts, many rural districts have very limited stores of instructional resources (library, books, science equipment, audio-visual materials, etc.), the area Title IVB is designed to supplement.

Funding formulas could be adjusted to take into account the district's capital, but we lack adequate data and measurement techniques about the resources now available in rural schools and the costs of providing them. Therefore, it is now impossible to determine whether Title IVB funding formulas are adequately sensitive to differing rural circumstances.

RECOMMENDATION: To meet rural needs, federal formula grant programs should explicitly require states to include factors for small size and isolation. Research should examine how the existing capital base of a district could be defined, in order to weigh the advisability of requiring a formula weighting factor to supplement a deficient capital base.

2. Rural districts receive a disproportionately low share of Title IVC competitive grant funds in some states, but not in others. Funding patterns for Title IVC differ across states in ways that reflect not only rural conditions within the states but also state policy decisions. State policy in some cases (Georgia, North Carolina, and Maryland) seem generally to favor, intentionally or not, the more rural areas, whereas in other cases (California, Kansas, and Vermont) state funding stragegies unwittingly discriminate against the rural regions.

In particular, a concentrated funding strategy of the type used in Kansas, for example, apparently places rural districts at a competitive disadvantage in both applying for and receiving grants. Yet states face a real dilemma in developing a strategy for competitive awards. If, on the one hand, they emphasize concentrated funding to increase the chances of getting effective projects, they reduce the number of grants and may be making it harder for rural areas to receive an equitable share. If, on the other hand, they spread their resources, they make the competition easier and presumably more equitable, though perhaps at the risk of sponsoring less effective projects.

Because part of the variation in funding patterns thus reflects decisions by state educational agencies, inequities could be ameliorated by federal regulation and guidelines that constrain how states allocate federal funds. For example, one promising way to assure that states explicitly treat the apparent rural competitive disadvantage would be to require states to establish a rural setaside in the Title IVC program.* The size of the setaside for each state would be determined by formula (which might be based, for example, on the percentage of rural population in the state plus factors reflecting the existing capital base). This setaside might be reserved for a competition only among rural districts who have never or not recently received grants. If the grant sizes were small, perhaps intended for planning or initial adoption purposes, this setaside might enable a relatively large number of recipients to develop the administrative capacity, experience, and motivation to participate, at some future time, in a more general competition with metropolitan districts.

To supplement the rural setaside, which is intended to encourage greater rural district participation in grants competition, federal policy might require states to provide incentives for regional rural cooperatives or intermediate institutions to compete for Title IVC

*The scheme suggested here might be better established as part of a specific new federal program on rural education. However, we doubt the political feasibility of such an initiative and therefore have restricted our suggestion to be compatible with modifications of current legislation.

funds. Several states, including California in our sample, have moved in this direction. Federal policy might also require states to establish rural outreach programs, funded by federal funds, and directed by a special rural office in the SEA. (Once again this policy could be accomplished by modification to the existing ESEA Title IV legislation.) Besides the value such outreach activities might have in encouraging rural school districts to participate in federal programs, the existence of a rural office in the SEA might serve important political functions--e.g., legitimizing rural concerns in state government, providing a focal point for interest group activity, and installing an "internal lobbyist" who could speak for rural concerns in state government councils.

In summary, the variation in funding patterns of Title IVC seems like an unintended, as well as an undesirable, effect of a federal policy that essentially ignores rural concerns in its regulations and guidelines. We advanced several, perhaps familiar, ideas whose implementation would constrain state discretion in allocating Title IVC funds. These ideas require more thought and analysis, but they do make it clear that feasible steps could be taken to assure that all states pay attention to the potential rural disadvantages in competitive grant programs.

RECOMMENDATION: Policy makers should assess the feasibility and analyze the consequences of various means (e.g., a rural setaside, incentives for regional cooperation or other intermediate institutions, and the establishment of state-level rural outreach programs) of assuring state cooperation in reducing rural competitive disadvantages in grant programs.

3. Finer-grained definitions of ruralness yield a different picture of Title IVC funding patterns than the usual metropolitan/nonmetropolitan distinction; thus, isolated rural districts receive fewer funds per student than do other rural districts. Our analysis first compared nonmetropolitan to urban and suburban funding patterns. Though this comparison is both necessary and pertinent, it falls

short of defining the essence of the rural education problem. Indeed, rural versus urban comparisons--however they turn out--simply add fuel to political fires whose rhetoric too often obscures federal and state legislation and action. Consequently, we next looked within nonmetropolitan areas to see whether funding patterns varied for different degrees of ruralness. They did, both within and across states. For example, in those states (California and Kansas) where our more precise definitions showed rural districts to be receiving disproportionately small shares of Title IVC funds, nonmetropolitan districts were receiving the same or greater per capita funding than metropolitan ones. The use of finer-grained definitions of ruralness exposes the extraordinary diversity of rural conditions.

Thus, equity <u>within</u> states should not necessarily be assessed in terms of whether rural areas receive a "fair share" relative to urban districts, but also by whether money allocated to nonmetropolitan areas is distributed fairly. The evidence for Title IVC is that isolated districts receive less than other rural districts of similar sparsity, and this finding holds for states favoring nonmetropolitan areas as well as those that do not (Vermont is the sole exception). But this evidence only hints at what may be pervasive biases within regions. For example, anecdotes about disproportionate shares of federal and state funds going to districts located near county seats or population centers in rural counties occur too frequently to be dismissed. Unless federal and state policy specifically treats disparities within rural regions, the funding inequities that our analysis uncovered plus those that lie buried beneath the surface will continue to exist.

RECOMMENDATION: Future analyses of federal funding patterns should examine distribution of funds among more and less rural places within nonmetropolitan counties, rather than rely only on the urban-suburban-nonmetropolitan classification. Policy

intended to assist rural areas should use finer distinctions than metropolitan-nonmetropolitan.[*]

4. Aggregate data analysis of federal funding patterns must be used cautiously. Our quantitative analyses identified several important hypotheses about funding patterns in the two programs, but they also revealed limitations on what can be learned through analysis of these data. The federal funding data as reported on the Section 437 tape, for example, pose a number of problems. They are incomplete in that they do not reveal the number of projects funded under Title IVC (only the total grants), the type of projects funded (e.g., developmental or adoption projects), the number of students served, or information on unsuccessful applications. To really understand how the Title IVC funding process works, therefore, one needs to collect data from individual states and districts. As noted earlier (see footnote, p. 7) the accuracy and comparability of the Section 437 data across states and programs needs to be verified. With respect to demographic information, the suppression of census data for very small school districts (enrollment under 300) creates major obstacles for analyzing rural area issues. Moreover, Title IVB and Title IVC probably represent the best cases for analysis using these data sources because they generally do not have the complex delivery systems using intermediate education agencies and cooperatives prevalent in other programs (handicapped, vocational education). These complexities make Section 437 and census data less useful for tracing the allocation of federal dollars to particular rural districts.

Even if these data problems were solved or if new financial data were collected for states and localities, the type of analysis

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[*]The Alcohol and Drug Abuse Prevention Act, passed by the Senate in May 1978, mandated that funds for school-based prevention programs be spent proportionately by population inside and outside SMSAs (Education Daily, May 30, 1978). In order to guarantee equitable funding for rural areas, as this provision attempts to do, our analyses indicate that a distinction finer than nonmetropolitan would have to be used. It would be ironic if such well-intended legislation actually exacerbated disparities within rural areas.

we have performed answers a limited question: where does the federal money go? It cannot treat how effectively the money is being used, what it is buying, or how it is changing the educational opportunities of rural youngsters. A different type of analysis is needed to answer these questions.

RECOMMENDATION: Future research on funding patterns for rural areas should concentrate on lower levels of aggregation, using data collected from individual states and districts.

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